

## The problem

### The costs

The heat transition is in full progress. Legislators and subsidy programmes are placing a strong emphasis on heat pump technology for new and existing buildings, which must be transformed into sustainable properties. However, the end of the use of fossil fuels must be economically viable. Here, ecology and economy must be brought into harmony, especially in larger properties, whose requirements must be specifically incorporated into supply concepts.



## The solution

### Economic concepts

Luana plans and operates heat pump projects. Whether underfloor heating or radiators with a high temperature level: heat pump concepts are cost-intensive and only very efficient in a certain environment. It is important to take advantage of this. Therefore, when installing or converting to this technology, the operation must also be ensured in an economically sensible way. Luana provides economical solutions from a single source, from planning to installation and operation.

# Heat pumps

## The market

According to the latest projections, the total market for heat generators increased slightly from 929,000 to approx. 949,000 heaters in 2022. At the same time, declining sales figures for gas heaters (approx. -10%) are recorded for 2022. As a result, the market share of heat pumps in the heat generator market jumped from 16.5% to approx. 25%, which means that every fourth heating system replacement in 2022 was associated with the installation of a heat pump.<sup>1</sup> ■

#### Source:

<sup>1</sup> Bundesverband Waermepumpe e.V. (bwp): „Marktentwicklung-Prognose-Handlungsempfehlungen“, Sector study 2023

# 70%

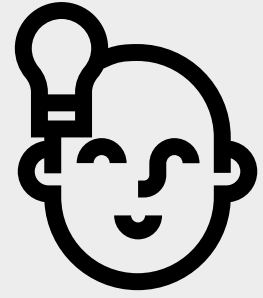
Approx. 70% of the heating market is still fossil.



## The problem

### Many technologies

Heat pumps are climate-friendly and use the reverse refrigerator principle. About three quarters of the energy needed for heating is drawn from the environment. The type of heat pump that makes sense is determined by the existing framework conditions. In principle, heat pumps can draw energy from the air, the soil, water, or waste water, as well as from ice stores. Currently, the technology is subject to constant innovation-driven further development.



## The solution

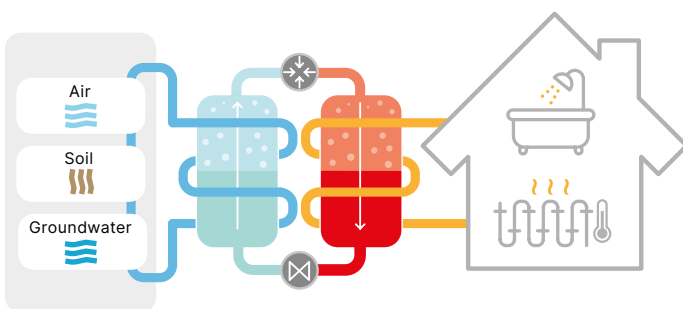
### Know-how

Luana has been developing and operating energy projects since 2008. With over 100 projects on its own balance sheet and around 200 realised projects, their profitability is always based on the fact that the concepts are individually tailored to the properties.

Experience and know-how are the key success drivers here in order to use the technological possibilities in an optimal supply solution.

# Heat pumps

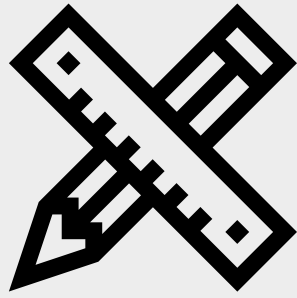
## The technology



**Picture above:**

Illustration of the most common heat sources for heat pumps: air, soil, and groundwater.

The most common heat sources are air, soil, and groundwater. To make use of the free environmental heat, heat pumps only require a small amount of electricity for the power unit and pump. The technology, legal requirements, and costs differ depending on whether the energy is extracted from the air, soil, or water. A heat pump heating system consists of three parts: the heat source system, which extracts the required energy from the environment, the actual heat pump, which makes the extracted environmental heat usable, and the heat distribution and storage system, which distributes or temporarily stores the thermal energy in the house. ■



## The offer

### Customized

With SmartSolutions, Luana develops optimal and tailor-made concepts under considering energy consumption profiles, space availability, and the best mix of new technologies. Luana also offers attractive financing options for the realization of these projects and takes over full operational management.



## Your benefits

### All from one source

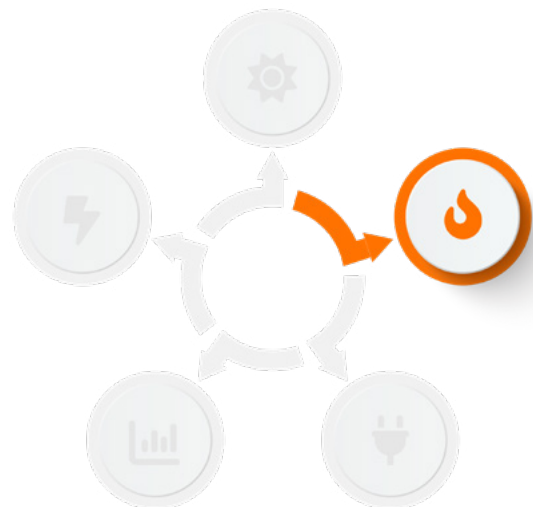
Luana develops, plans, and operates your heat pump. If desired, this can also be financed. Our customers receive predictable electricity costs, increase their security of supply, make an important contribution to climate protection, and finally improve their ESG rating.

# Heat pumps

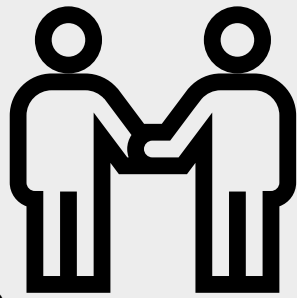
## SmartSolutions

Luana's goal is to ensure that every kilowatt hour produced is generated in an environmentally-friendly, cost-effective, and decentralized manner. To achieve this, we offer SmartSolutions that optimally combine modern technologies, such as photovoltaics, heat pumps, charging infrastructure, and CHP technologies (combined heat and power plants), to accelerate your personal energy transition. This approach takes a holistic view of reducing CO<sub>2</sub> emissions. We utilize innovative optimization techniques, financing alternatives, and an AI-powered remote monitoring system to create customized solutions for our clients. ■

Heat pumps are only one component of our holistic energy concepts. You don't know exactly which technology components you need? No problem. We will be happy to advise you.







## Our approach

### Integrative collaboration

In accordance with our corporate value "Community", we place the highest value on an extraordinarily human approach to our customers. Integrative cooperation characterized by openness, fun, and trust is our approach.

## Best practices References

With us, projects become your success story. We are pleased about our long-term and successful cooperation with our satisfied customers—since more than 15 years.



*"Whether existing properties, new projects, or ESG—in terms of energy with Luana we finally have a partner for everything. Highly professional!"*

**Nils Harde**  
INP group



*"Luana develops a sustainable energy concept individually for each of our projects. The energy pioneer."*

**Stefan Müller**  
ENCC



*"Security of supply is the most important thing for us and our residents. Luana is the best energy supplier for us. The insider's tip for operators of care properties."*

**Kai Becker**  
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## Let's get in touch

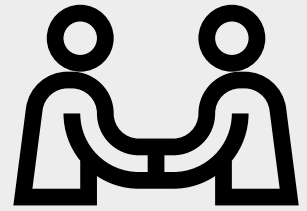
Looking forward!

Any questions? Let's talk to each other.  
You are always more than welcome to visit us  
in Hamburg at our headquarters on the Alster.  
Of course, we are also happy to come to your  
office.

We look forward to meeting you and providing  
you with a free, no-obligation, custom quote.



**Status:** August 2025



## Personal & direct

Your contact person



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